

WHAT IS CLAIMED IS:

1. A fuse comprising:
a silicide element disposed above a substrate;
a first terminal contact coupled to a first end of the silicide element;
a first metal line disposed above the silicide element and coupled to the first terminal contact;
a plurality of second terminal contacts coupled to a second end of the silicide element;
a second metal line disposed above the silicide element and coupled to the plurality of second terminal contacts; and
the silicide element having a sufficient width that a programming potential applied across the first and second metal lines causes a discontinuity in the first terminal contact.
2. The fuse, as set forth in claim 1, further comprising a polysilicon layer disposed below the silicide element.
3. The fuse, as set forth in claim 1, further comprising an active region disposed below the silicide element.
4. The fuse, as set forth in claim 1, wherein a width of the silicide element is at least two times greater than a width of the first terminal contact, and a width of the first metal line is at least four times larger than the first terminal contact width.
5. The fuse, as set forth in claim 1, wherein a width of the silicide element is at least two times greater than a width of the second terminal contact, and a width of the second metal line is at least four times larger than the second terminal contact width.
6. The fuse, as set forth in claim 1, wherein a cross-sectional area of the first terminal contact is significantly less than a cross-sectional area of the silicide element.

7. The fuse, as set forth in claim 1, wherein a cross-sectional area of the first terminal contact is significantly less than a combined cross-sectional area of the plurality of second terminal contacts.

8. The fuse, as set forth in claim 1, wherein the first terminal contact and the plurality of second terminal contacts comprises metal.

9. The fuse, as set forth in claim 1, wherein a plan view of the silicide element is generally rectangular in shape.

10. The fuse, as set forth in claim 1, further comprising a transistor coupled to the first metal line operable to induce a programming current in the fuse.

11. A semiconductor fuse comprising:
a silicide strip disposed above a substrate;
a first terminal contact electrically coupled to a first end of the silicide strip;
a plurality of second terminal contacts electrically coupled to a second end of the silicide strip;

the silicide strip having a sufficient width that a programming potential applied across the first terminal contact and the plurality of second terminal contacts causes an increased resistance across the first terminal contact and the plurality of second terminal contacts.

12. The semiconductor fuse, as set forth in claim 11, further comprising a polysilicon layer disposed below the silicide strip.

13. The semiconductor fuse, as set forth in claim 11, further comprising an active region disposed below the silicide strip.

14. The semiconductor fuse, as set forth in claim 11, wherein a cross-sectional area of the first terminal contact is significantly less than a cross-sectional area of the silicide strip.

15. The semiconductor fuse, as set forth in claim 11, wherein a cross-sectional area of the first terminal contact is significantly less than a combined cross-sectional area of the plurality of second terminal contacts.

16. The semiconductor fuse, as set forth in claim 11, wherein the first terminal contact and the plurality of second terminal contacts comprises metal.

17. The semiconductor fuse, as set forth in claim 11, wherein a plan view of the silicide strip is generally rectangular in shape.

18. The semiconductor fuse, as set forth in claim 11, further comprising a transistor coupled to the first terminal contact operable to induce a programming current between the first terminal contact and the plurality of second terminal contacts through the silicide strip.

19. A method comprising:

forming a silicide element in a substrate;

forming a first contact electrically coupled to a first end of the silicide element;

forming a plurality of second contacts electrically coupled to a second end of the silicide element;

forming a first wide metal line electrically coupled to the first contact; and

forming a second wide metal line electrically coupled to the plurality of second contacts.

20. The method, as set forth in claim 19, further comprising forming a polysilicon layer disposed below the silicide element.

21. The method, as set forth in claim 19, further comprising forming an active region disposed below the silicide element.

22. The method, as set forth in claim 19, wherein forming the first contact comprises forming a first contact having a cross-sectional area significantly less than a cross-sectional area of the silicide element.

23. The method, as set forth in claim 19, wherein forming the first contact comprises forming a first contact having a cross-sectional area significantly less than a combined cross-sectional area of the plurality of second contacts.